

Long-Term Levee Protection Plan

Program is a cooperative effort among state and federal agencies and the public to ensure a healthy ecosystem, reliable water supplies, good quality water, and stable levees in California's Bay-Delta system. The Long-Term Levee Protection Plan is one of six Program elements common to each of the three potential solutions CALFED has developed, represents a significant investment in the system and will greatly reduce system conflicts.

Variable Program Storage Conveyance Elements **Ecosystem** Restoration Water Use Efficiency Watershed Common Management Program Elements Water Transfers System Quality

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The Problem

Delta levees are the most visible manmade feature of the Bay-Delta system. They are an integral part of the Delta landscape and are key to preserving the Delta's physical characteristics and processes, including definition of the Delta waterways and islands. There is growing concern that California's Bay-Delta system levees are vulnerable to failure, especially during earthquakes or periods of high runoff. A significant levee failure in the Delta could not only flood farmland and wildlife habitat, but also interrupt water supply deliveries to urban and agricultural users and disrupt highway and rail use. Most Delta islands have land surface elevations below sea level. Natural settling of the levees and shallow subsidence of Delta island soils (oxidation which lowers the level of the land over time) resulted in a need to increase levee heights to maintain protection.

The Goal

To reduce risks associated with the sudden and catastrophic failure of Delta levees by implementing an integrated and comprehensive program for maintenance and rehabilitation of Delta levees and channels.

Ways This Can Be Accomplished

There are five main parts to the levee protection plan:

Base-Level Protection Plan – Provides equitably distributed funding to participating local agencies in the Delta.

Special improvement Projects – Establishes a funding mechanism for special habitat improvement and levee stabilization projects to augment the base level funding. Special improvement project funding is based on the benefit to the public, not the need for improvement.

Delta Island Subsidence Control Plan – Focuses on reducing the risk to levee stability from subsidence by funding grant projects to develop best management practices.

Emergency Management Plan — Builds upon existing state, federal and local agency emergency management programs to improve protection of Delta resources in the event of a disaster.

Seismic Risk Assessment – Evaluates the potential performance of the existing levee system during seismic events.

Key Benefits

- Provides funding for continued maintenance of levees to protect Delta functions
- Ensures suitable funding, equipment and materials availability, and coordination to rapidly respond to levee failures
- Subsidence reduction helps long-term Delta system integrity
- Increases reliability for water supply needs from the Delta and in-Delta water quality
- Increases reliability for in-Delta land use
- Increases reliability for in-Delta aquatic and wildlife habitat

Issues & Concerns

- Cost of implementation may exceed the benefits
- Specific management entity may be needed to assure integration with other Program elements
- Substantial conversion of productive agricultural land will occur
- Support of the levee restoration program would diminish if an isolated facility were built
- Levee system integrity cannot be sustained if subsidence problems continue
- Dredging for the levee program may affect water quality and sensitive fish and wildlife